

CLAIM SUMMARY DOCUMENT

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CLAIMSWE CLAIM:

1. (Currently Amended) ~~Method of preventing blockages of the flow paths of a separator when processing a fat-containing initial product, particularly milk, having the steps of~~

~~————— A) determining the concentration of the fat content of an outflowing product phase for detecting an imminent clogging; and~~

~~————— B) when a defined fat content limit value has been reached or exceeded, shifting the separation zone in the separator drum for a defined minimum time period by changing the operating parameters, for preventing a clogging.~~  
A method of preventing blockages of flow paths of a separator, the separator processing a fat-containing product such as milk, the method steps comprising:

determining a concentration of the fat content of an outflowing product phase from the separator to detect an imminent clogging; and

shifting a separation zone in a separator drum of the separator for a defined minimum time period by changing operating parameters when a defined fat content limit value is one of reached and exceeded.

2. (Currently Amended) ~~Method~~The method according to Claim 1, ~~characterized in that it is used when separating~~wherein the fat-containing product is cold milk and the cold milk is separated into cream and skimmed milk.

3. (Currently Amended) ~~Method~~The method according to Claim 2, ~~characterized in that~~wherein the cold milk ~~of~~has a temperature of 2-15°C, ~~particularly 4-10°C, and is~~ separated into cream ~~with~~having a fat content of 28-45% and into skimmed milk.

4. (Currently Amended) ~~Method~~The method according to Claim 1, ~~characterized in that~~wherein the separation zone in the drum is shifted toward ~~the~~an interior of the drum when ~~a~~the fat content limit value has been one of reached ~~or is~~and exceeded.

5. (Currently Amended) ~~Method~~ The method according to ~~one of the preceding~~ claims, ~~characterized in~~ Claim 1, wherein the ~~determination~~ determining of the concentration of the fat content takes place by ~~means of~~ a mass flow meter.

6. (Currently Amended) ~~Method~~ The method according to ~~one of the preceding~~ claims, ~~characterized in that, when determining the fat content, a~~ Claim 5, wherein the mass flow meter is ~~used which~~ has a separate density output.

7. (Currently Amended) ~~Method~~ The method according to ~~one of the preceding~~ claims, ~~characterized in that~~ Claim 1, wherein the separation zone in the drum is shifted toward the ~~an~~ interior of the drum by a throttling of a valve in the ~~a~~ skimmed milk outlet.

8. (Currently Amended) ~~Method~~ The method according to ~~one of the preceding~~ claims, ~~characterized in that~~ Claim 7, wherein the throttling of the valve in the skimmed milk outlet takes place by ~~means of~~ a timer for a defined time period.

9. (Currently Amended) ~~Method~~ The method according to ~~one of the preceding~~ claims, ~~characterized in that~~ Claim 1, wherein the separation zone is shifted by an increase of the ~~an~~ inflow rate.

10. (Currently Amended) ~~Method~~ The method according to ~~one of the preceding~~ claims, ~~characterized in that~~ Claim 9, wherein the inflow rate is increased within a time period of from 5-60 seconds.

11. (Currently Amended) ~~Method~~ The method according to ~~one of the preceding~~ claims, ~~characterized in that~~ Claim 9, wherein the inflow rate is increased within a time period of from 5-20 seconds.

12. (Currently Amended) ~~Method~~ The method according to ~~one of the preceding~~ claims, ~~characterized in that~~ Claim 9, wherein the inflow rate is increased by 5-40%.

13. (Currently Amended) ~~Method~~ The method according to ~~one of the preceding~~ claims, ~~characterized in that~~ Claim 9, wherein the inflow rate is increased by 5-20%.

14. (Currently Amended) ~~Device~~ A device for implementing the method according to ~~one of the preceding claims, having~~ of Claim 1, the device comprising a separator for processing the milk, ~~characterized by~~ and further comprising a measuring and control device

~~C)~~ for detecting an imminent clogging ~~by means of a determination of~~ determining the concentration of the fat content of an outflowing product phase ~~[[;]]~~ and

~~D)~~ for changing ~~the operating parameters of the separator~~ when a defined fat content limit value has been ~~one of~~ reached or and exceeded, which is such changing of the operating parameters being designed for shifting the separation zone in the separator drum for ~~a the~~ defined minimum time period ~~by changing the operating parameters~~, for preventing a clogging.

15. (Currently Amended) ~~Device~~ The device according to Claim 14, ~~characterized in that~~ wherein the separator is a cold milk separator having an inlet (1) for cold milk, as well as an outlet (4) for skimmed milk and a cream outlet (5), and an analyzer (6) being is arranged in the cream outlet (5), ~~by means of which analyzer the cream concentration — the fat content of the cream — can be is~~ determined.

16. (Currently Amended) ~~Device~~ The device according to Claim 14 ~~or 15,~~ ~~characterized in that~~ wherein the analyzer (6) is connected with a control input of a control valve (7) in the skimmed milk outlet.

17. (Currently Amended) ~~Device~~ The device according to Claim 16, ~~characterized in that~~ 15, wherein the analyzer (6) is connected with a device for controlling ~~the an~~ inflow rate of cold milk into the separator.

18. (Currently Amended) ~~Device~~ The device according to ~~one of Claims 14 to 17,~~ ~~characterized by~~ Claim 14, wherein the control valve is controlled by a timer.

19. (Currently Amended) ~~Device~~ The device according to ~~one of Claims 14 to 18,~~  
~~characterized in that~~ Claim 15, wherein the inlet (1) ~~extends at the~~ from a bottom of the  
separator into a separator drum (10) ~~with~~ having a vertical axis of rotation.

20. (Currently Amended) ~~Device~~ The device according to ~~one of Claims 14 to 19,~~  
~~characterized by~~ Claim 15, wherein the separator includes a swirl space (13) on a separating  
disk (12) and a regulating disk (14) ~~with~~ having a diameter larger than ~~the~~ a gripper chamber  
cover (15), which swirl disk, regulating disk and gripper chamber cover are arranged in a  
path to the skimmed milk outlet.

21. (New) The method of Claim 2, wherein the cold milk has a temperature of 4°-  
10°C and is separated into cream having a fat content of 28-45% and into skimmed milk.